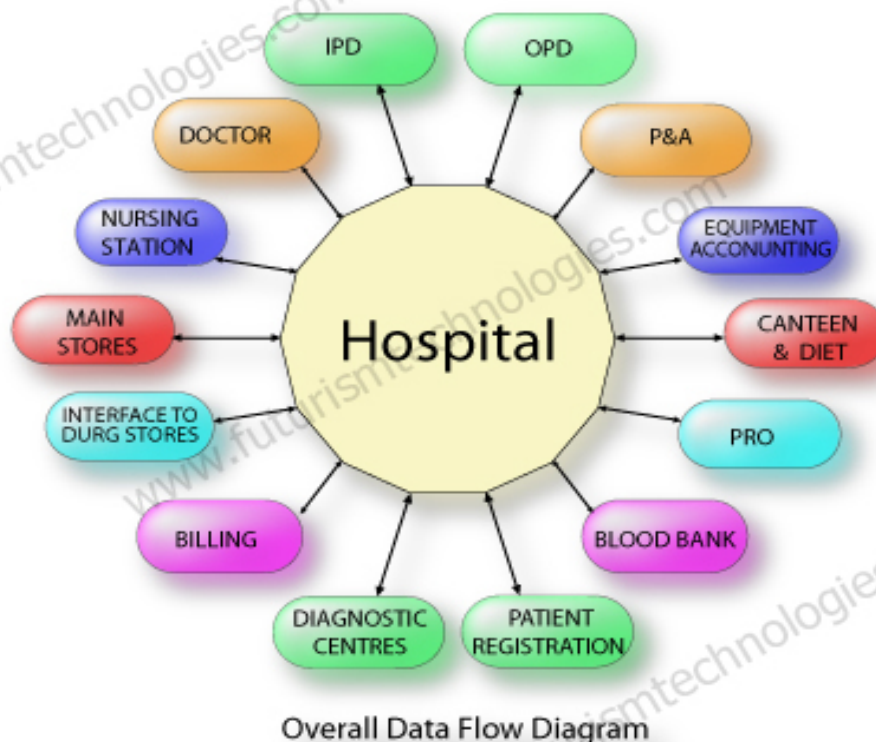


## Hospital Information System

HIS is a comprehensive, integrated information system built for managing the operations in running health care facilities (Hospitals). HIS as any other integrated system, needs time for developing, require special type of professional skills for development and software production but most importantly it costs money for development, installation, support and upgrade.

A general block diagram of HIS is shown in the figure:



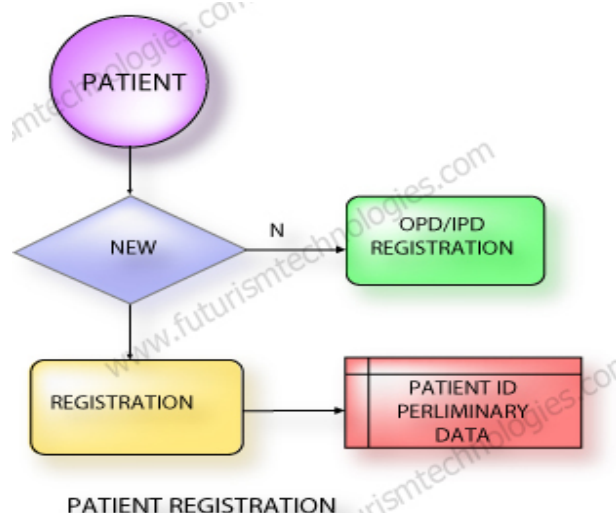
### ADVANTAGES

1. Hospital Information System helps in maintaining a totally secured database of Patients and business information. This information can be available at your fingertips.
2. Hospital Information System helps in improved healthcare delivery by providing medical personnel with better data access, faster data retrieval, higher quality data and more versatility in data display.
3. Hospital Information System helps in improving efficiency, both on the cost and the clinical care perspective. This is achieved by avoiding duplications, repetitions, delays, missing records and confusions.

4. Hospital Information System helps to force orderliness and standardization of the patient records and procedures in the clinic and increasing accuracy & completeness of medical records of Patient.
5. Hospital Information System helps as a good managerial tool to provide total, cost-effective access to complete and more accurate patient care data to offer improved performance and enhanced functions.
6. Hospital Information System helps in gathering information to meet management challenges.
7. Hospital Information System helps to educate patients about their diseases of surgical procedures through pictures and animations.

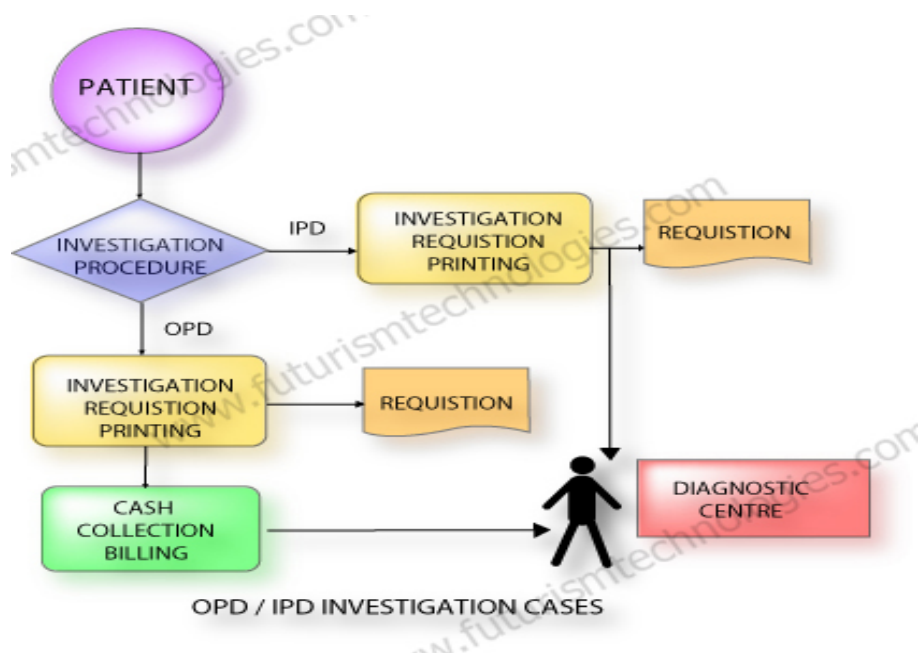
**Structuring Medical Records to carry out functions like admissions ,discharge, treatment history etc:**

**Patient Registration:** This function of Hospital Management Information System deals with registering the new Patient either for OPD or IPD and giving unique Identification Number to the Patient. This number is unique through out the System for identifying the patient. The patient can be registered either at IPD Front Office or at OPD Reception. The OPD or IPD identification number is also created for each separate visit of the patient. This is also a part of registering patient. IPD/OPD ID is used for tracking of medical records of the patient for that particular OPD visit or IPD admission. All the medical record of the patient are identified by combination of numbers i.e. Patient ID and OPD/IPD ID. The numbers gives flexible search in terms of finding patient's History Record.

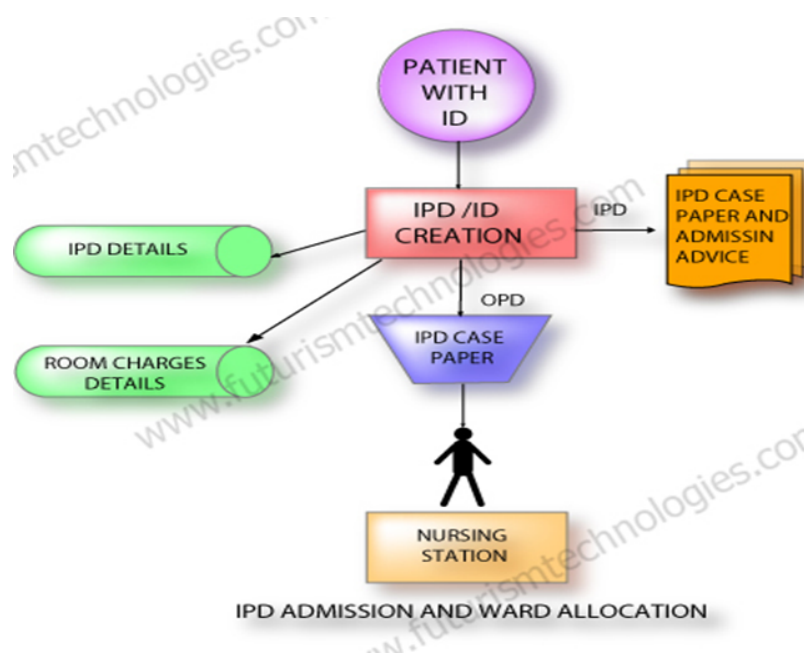


**OPD / IPD Investigation Cases:** This Module of Hospital Management System deals with all

kinds of Investigations suggested by Doctors. The function enables the entry of Investigations /Procedures for a particular patient. The entered investigations are routed through the Billing/Cash office and once the patient pays for the Investigations the entries of the same goes to respective Diagnostics Center. This flow is not compulsory of IPD patients since the Billing for IPD patients is done at the time of Discharge. Investigation requisition is created and printed with function and the same is available at respective diagnostics center for preparation of Reports.



**IPD ADMISSION AND WARD ALLOCATION:** This function Patient IPD Admission gives facility to process patient admission and allocate Bed to patient. System identifies the patient as new IPD patient or internal referred from hospital OPD/CMO. This function gives information on vacant beds in a Hospital. Occupancy status on that particular position can be find out while allocating the Bed. The main function Patient Admission facilitates admitting the patient according to requirement, considering the type of admission and the patient condition. The admission of the patient can be direct / Referred from a consultant / Hospital. The category of the patient can be Company, Self, Government Schemes, Insurance, and MLC depending on that the admission procedure is completed. Once the patient is admitted in the Hospital the Room charge starts from the time of Admission. The case paper of the patient is printed from the system and is send to the respective Nursing Station. Once the Admission of the patient is completed the IPD Identification Number is created by the system for that particular Admission of Patient. The IPD Admit Card is also printed along with the Case Paper. The system informs with Audio Visual alert to the respective Nursing Station about admission of the patient under them and to prepare Room for patient. In case of MLC, system stores the details of the Police Station, Name of the official informed about Medical Legal Case.



**PATIENT SHIFTING:** This function of Hospital Management System facilitates to Shift patient from one Room to other inside the Hospital. With this facility patient's actual position can be updated on line so that the internal functions such as Billing, Investigations, Surgery are planned. The position of the patient is very important since all the charges like Surgery. Procedures, Investigations are related to Room Category.

**DEPOSITS, ADVANCES, REFUNDS, DISCOUNTS AND CONCESSIONS:**

This function of Hospital Management System facilitates all kind of financial transactions from the patient. Function plays vital role in payment recovery from patients time to time during the stay. The Advances from the patient depends on the Type of Admission and the Patient category is prompted by the System. The Interim Bill vs. Advances ratio is also maintained to carry out recovery planning. Advances and the deposits accepted by the Billing/Cash counter are directly posted into Accounts. Refund cases are considered for excess Advances from the Patient. The Accounts Official authorizes this transaction and then refund is processed. In case of Company category patient the ration analysis between Interim Bill and the Authority letter amount by the company is compared for further action. If patient is to be given Discounts then the authorized person authorizes the Amount and the discount is processed. The discount categories are flexible and can be changed by the administrator. This facilitates easy way to keep track on the discounts and concession.

Following are the main reports / outputs generated by HIS:

- **Patient List – Admitted / Discharged.**  
This report gives information on admitted/discharged patients during certain time period. This facilitates management to know the Admission vs. Discharges ratio.
- **Bed occupancy Reports.**  
This report gives information on Bed Occupancy at any given time room category wise.
- **Ward Allocation Reports.**  
This report gives allocated rooms report for tracking of patient.
- **Interim Bill v/s Advance Report.**  
This report gives the ration of Interim Bill vs. Advances paid by the patient with the percentage of payment.
- **Admission / Discharge Register.**  
Admission and Discharge register is maintained by the system. This report gives details of patient Admission and discharges during specific period.
- **Consultant wise patients**  
This report gives Doctor wise patients at any point of time to know referring or In-charge doctor.
- **Appointment List**  
The appointments for consultants are maintained on the system.
- Performed operation list.
- Patient follow-up report.
- DIAGNOSTIC CENTRES
- This module enables to get patient's investigation, procedure record from different locations i.e. IPD, OPD, Casualty.

### **Automated Clinical Laboratory Systems & Radiology Information System:**

This function of HIS covers Laboratory System for Pathology, Radiology, Cardiology, Neurology, and Chest Medicine. The prescriptions given by the Doctors are routed through billing system to respective Diagnostic Centers.

#### **Pathology**

Laboratory module starts with receiving the online request from doctors. Laboratory personnel can also generate requests. This facilitates investigations for referral patients. Tests are grouped under various sections and sample type (specimen). Based on the request the user can input the sample and generate the sample number. Results can be inputted based on the sample type. Results can be inputted either to one test or multiple tests. If the test result requires approval, the supervisor has to approve the result. Test results are available to concerned doctors. Test report can be made confidential. Tests can be performed only after the billing is done. This rule is exempted when the case is declared as Urgent.

- Integration of tests Ordered from Clinical Modules
- Comprehensive On-line Laboratory Reports

- Fast Entry of Results
- Enables Doctors to see the Results On-Line from any Location at any time
- Up-to-date status about request
- Provision for templates of Input of test Results

### **Radiology**

Radiology module caters to services such as X-ray, Scanning, Ultra sound etc. Scheduling of Radiology resources is possible. The system stores all the result details of various tests and makes a Report based on the Test Results. These Tests are carried out both for Inpatient and Outpatient. The system stores all the details (like patient number, Test Report like X-Ray, Scanning details) and for each scan the system generates a unique number for the image.

Investigations can be done only after the billing is done. This rule is exempted when the case is declared as Urgent.

- CT Scanning: Direct Capturing of CT Scanned images, Easy Reporting facility
- MRI: Easy reporting
- X-Rays: Direct Capturing of X-Ray images

### **Sonology**

- Sonography Reporting
- Capturing of Images

### **Cardiology**

- ECG Notes

### **Neurology**

- EMG Reporting
- Prescriptions Discharge Card

### **Blood Bank**

This module is developed keeping in view the legal and other requirements of operating the Blood Banks. It deals in detail with blood transfusion centers and the component laboratories and works as is online interactive system. It also generates legal as well as internal operation records.

## Functions

- Donors data entry, Details of Donors such as Name, Address, Contact Numbers, Blood group are maintained in the system through Donors data entry.
- The details can be printed as and when required. The mailing list from the available data of donors can be printed for Correspondence.
- Investigation Data Entry
- Various tests details are stored in the system for as per rules of Blood Bank.
- Maintains data of tests
- Tests data details required for Blood Bank records are stored into the system with specific results on HIV, HB details.
- Facilitates component level administration of the blood units
- Keeps track of distribution / disposal of the whole blood and the components
- Signals expiry dates and components characteristics

## Reports

- Blood Stock Register
- Donor register as per FDA requirements
- Investigation Report
- Blood Issue Register
- Demographic data of Donors

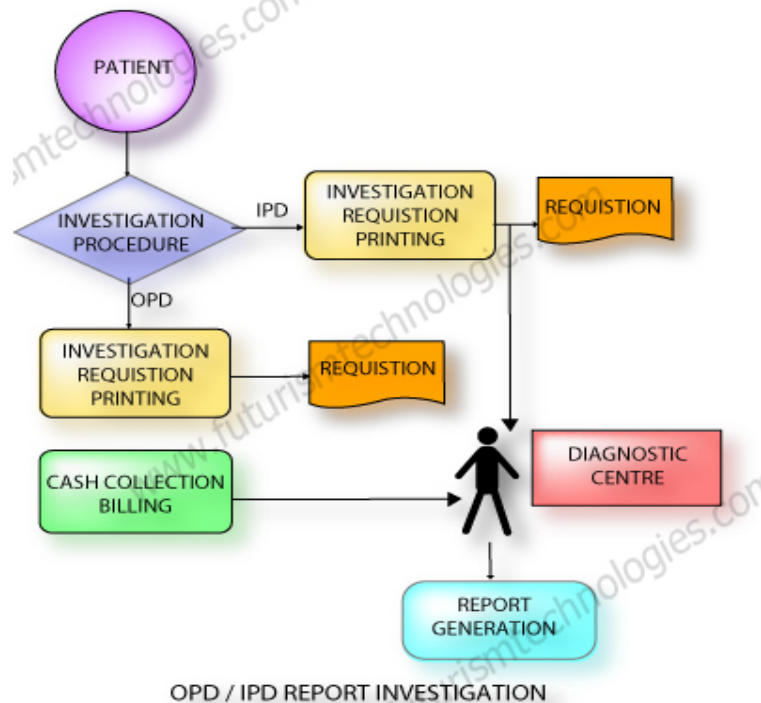


Figure: Radiology Information System

## **Role of Database in HIS**

Database is the heart of Hospital Information system. It consists of an orderly written document encompassing the patient's identification, health history, physical examination findings, laboratory reports, treatment, surgical procedure reports and hospital course. When complete, the record should contain the data to justify investigations, diagnosis, treatment, and length of stay, results of care and future course of action". Thus, it becomes a tool :

- To provide a means of communication among physicians, nurses and other allied health care professionals
- To provide Continuity of patient care, help in medical education and research
- To provide information for the quality review of patient care
- To protect legally the physician, patient, hospital and helps in third party payment.
- Failure to maintain an accurate, timely and complete database spoils the usefulness of HIS.

Medical Records are valuable to patients, physicians, nurses, teachers, students, and health care institutions, and research teams, national and international organizations.

\* Advantages of having good database can be taken from Advantages of HIS.

## **Need of Networking in HIS**

Networking plays an important role in Hospital Information System, with new applications that improve patient care and drive down spiraling healthcare costs. However, rapid changes in next generation wired and wireless healthcare applications mean that the network is no longer an option, but a necessity. HIS providers are under increasing pressure to provide an infrastructure that can be optimized for these next-generation applications. Applications such as electronic Medical records (EMR) and wireless monitoring and the increasing use of handheld devices and broader imaging distribution all drive the need for network upgrades to provide a more robust, higher-performing, and secure network infrastructure. This infrastructure is critical to reduce staff wait times and allow staff and patient mobility, equipment tracking, and broader integration of data systems. even with the need to control costs, HIS providers are still expected to fund network growth as more and more devices are connected via the wired and wireless network. Although higher performance and lower total Cost of ownership (TCO) may be conflicting goals, Hospitals find HIS exceed performance and cost expectations, but can do so while providing a more secure and flexible network infrastructure that can scale to meet growing connectivity demands. Depending on the size and function of the institution, hospital network architectures can vary significantly in complexity and scope. Although the basic architecture for a hospital network is similar to the architecture of other campus networks, responding to the dynamic changes in improved patient care and cost control requires significantly more planning and strategy than was previously required. HIS networks demand greater flexibility in supporting a wide range of medical devices and applications including EMR, PACS, collaboration, handheld devices, wireless patient monitoring, and



other services. As more and more wired and wireless services are used and the network must support patient care, an efficient network is no longer a luxury, it is a necessity.

## **HEALTH EDUCATION**

Health education is the profession of educating people about health. Areas within this profession encompass environmental health, physical health, social health, emotional health, intellectual health, and spiritual health. It can be defined as the principle by which individuals and groups of people learn to behave in a manner conducive to the promotion, maintenance, or restoration of health. However, as there are multiple definitions of health, there are also multiple definitions of health education. The WHO defined Health Education as "comprising consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health."

**Need of Health Education:** Education for health begins with people. It hopes to motivate them with whatever interests they may have in improving their living conditions. Its aim is to develop in them a sense of responsibility for health conditions for themselves as individuals, as members of families, and as communities. In communicable disease control, health education commonly includes an appraisal of what is known by a population about a disease, an assessment of habits and attitudes of the people as they relate to spread and frequency of the disease, and the presentation of specific means to remedy observed deficiencies.

Health education is also an effective tool that helps improve health in developing nations. It not only teaches prevention and basic health knowledge but also conditions ideas that re-shape everyday habits of people with unhealthy lifestyles in developing countries. This type of conditioning not only affects the immediate recipients of such education but also future generations will benefit from an improved and properly cultivated ideas about health that will eventually be ingrained with widely spread health education. Moreover, besides physical health prevention, health education can also provide more aid and help people deal healthier with situations of extreme stress, anxiety, depression or other emotional disturbances to lessen the impact of these sorts of mental and emotional constituents, which can consequently lead to detrimental physical effects.

**Role of Health Education in Society:** Health education is the continuous process of enlightening people about the ways of achieving and maintaining good health. It focuses on informing them so as to motivate their actions towards the initiation of a change in their lifestyle that is in the greater interest of the environment.

Products and services from a wide range of organizations and individuals are brought under the cover of a typical health care education industry. An organization or an individual who is engaged in the field of providing products or services that contribute towards the improvement or maintenance of health are considered as providers of education and health care.

However, even if the present day society is well aware of health issues, the importance of exercise and nutrition, still most individuals cannot stop themselves from smoking, eating junk food leading to development of flab in the body and spend most of their lives in a lethargic manner. The account goes well for most of the adolescents and adults.

Health education has a crucial role to play in schools. The maintenance and promotion of health education in schools has been aptly considered vital by those engaged in health education services. The reason for giving preference to schools is that student age is the only time that individuals are able to reach a level of energy and strength that they ever reach during their lives. Additionally, they also tend to have a sense of invulnerability and uniqueness that makes them think that disorder and illness will not affect their lives. And, most of the adolescents have a conception that they are going to be here forever and that they can always recover from any bad habits or health losses that may come in their lives. Even with the best of physical features, most adolescents lead a life of unhealthy habits. This is where health education plays an important role in schools.

## **HEALTH INSURANCE**

Health insurance is insurance against the risk of incurring medical expenses among individuals. By estimating the overall risk of health care expenses among a targeted group, an insurer can develop a routine finance structure, such as a monthly premium or payroll tax, to ensure that money is available to pay for the health care benefits specified in the insurance agreement. The benefit is administered by a central organization such as a government agency, private business, or not-for-profit entity.

**Importance:** An English proverb says that “Health is Wealth”. It is not a meaningless saying as it defines a very important fact of life. Your health is the most precious wealth that God has given you. It is your own property and you are the sole owner of it. Therefore, it is your responsibility to look after it properly. However, it is also true that the life is full of uncertainties and you never know what will happen in the next few hours. Therefore, it is also your duty to make certain arrangement so that you can take care of yourself as well as your family even if some misfortune falls upon you.

Here comes the importance of health insurance program. This health insurance program, as the name itself tells, is entirely meant for the proper care of your body and health. It is a permanent arrangement that you can avail at a time when you need to undergo some serious health disorder. These health disorders are very expensive by nature and you may need the help from some sources to meet the expenses of this treatment. As you all know, the cost of medical treatment

has become very costly and a person from the lower or middle income group cannot think about such a costly treatment.

A health insurance program is a service of the insurance companies that keeps your ensured against any serious illness like cancer. If, unfortunately, you happen to suffer from this serious disease ever in your life, you would not be worried about the cost of treatment as you can get the sum for treatment. As far as success of treatment is concerned, it is not sure, however, your family gets a huge sum of money if you happen to die in the process of your treatment.

The advantage of this health insurance program is very unique. You need not spend a penny from your pocket and the whole cost of treatment is borne by the insurance company. It is a great relief for the members of your family as well because they need not worry about your treatment. A health insurance program is a very useful investment because it helps you at the time when you need the money most. If you do not have the health insurance program for yourself, then you will be in deep trouble when a situation like occurs in front of you and leaves you in want of a huge sum of money.

**Reasons for poor penetration of health insurance:** Penetration of health insurance has been slow and halting, despite the 'huge market' estimated to range between Rs 7.5–20 crores. Some reasons that explain for the slow expansion of health insurance in the country are as follows:

- **Lack of regulations and control on provider behavior:** The unregulated environment and a near total absence of any form of control over providers regarding quality, cost or data-sharing, makes it difficult for proper underwriting and actuarial premium setting. This puts the entire risk on the insurer as there could be the problems of moral hazard and induced demand. Most insurance companies are therefore wary about selling health insurance as they do not have the data, the expertise and the power to regulate the providers. Weak monitoring systems for checking fraud or manipulation by clients and providers, add to the problem.
- **Unaffordable premiums and high claim ratios:** Increased use of services and high claim ratios only result in higher premiums. The insurance agencies in the face of poor information also tend to overestimate the risk and fix high premiums. Besides, the administrative costs are also high—over 30%, i.e. 15% commission to agent; 5.5% administrative fee to TPA; own administrative cost 20%, etc. Patients also experience problems in getting their reimbursements including long delays to partial reimbursements.
- **Reluctance of the health insurance companies to promote their products and lack of innovation:** Apart from high claim ratios, the non-exclusivity of health insurance as a product is another reason. In India, an insurance company cannot sell non-life as well as life insurance products. Since insurance against fire or natural disaster or theft is far more profitable, insurance companies tend to compete by adding low incentive such as premium health insurance products to important clients, cross-subsidizing the resultant losses. With a view to get the non-life

accounts, insurance companies tend to provide health insurance cover at unviable premiums. Thus, there is total lack of any effort to promote health insurance through campaigns regarding the benefits of health insurance and lack of innovation to make the policies suitable to the needs of the people.

- Too many exclusions and administrative procedures : Apart from delays in settlement of claims, non transparent procedures make it difficult for the insured to know about their entitlements, because of which the insurer is able to, on one stratagem or the other, reduce the claim amount, thus demotivating the insured and deepening mistrust. The benefit package also needs to be modified to suit the needs of the insured. Exclusions go against the logic of covering health risks, though; there can be a system where the existing conditions can be excluded for a time period—one or two years but not forever. Besides, the systems entail equity implications.
- Inadequate supply of services: There is an acute shortage of supply of services in rural areas. Not only is there non-availability of hospitals for simple surgeries, but several parts of the country have barely one or two hospitals with specialist services. Many centres have no cardiologists or orthopaedicians for several non-communicable diseases that are expensive to treat and can be catastrophic. If we take the number of beds as a proxy for availability of institutional care, the variance is high with Kerala having 26 beds per 1000 population compared with 2.5 in Madhya Pradesh.

## **HEALTH LEGISLATION**

Health legislation encompasses the laws, ordinances, directives, regulations and other similar legislative instruments that deal with all aspects of health protection and promotion, disease prevention, and delivery of health care.

### **Health Legislation in India: A Compilation**

Health is a State subject and, in many areas, the state government legislations are applicable. Given the enormity of the task of compiling all health related laws, this compilation is restricted to laws applicable at the central level and those related to health and health care issues. Over 200 Acts and Rules in this compilation were collected over a period of time from different sources, too many to be mentioned. Key health related international covenants and guidelines have also been included.

The categorization of legislations has been adapted from the WHO classification. The broad areas covered include:

- Health Facilities and Services
- Disease Control and Medical Care
- Human Resources
- Ethics and Patient Rights

- Pharmaceuticals and Medical Devices
- Radiation Protection
- Hazardous Substances
- Occupational Health and Accident Prevention
- Elderly, Disabled, Rehabilitation and Mental Health
- Family, Women and Children
- Smoking, Alcoholism and Drug Abuse
- Social Security and Health Insurance
- Environmental Protection
- Nutrition and Food Safety
- Health Information and Statistics
- Intellectual Property Rights
- Custody, Civil and Human Rights
- Others

## **HEALTH FINANCING SYSTEM**

Financing is the most critical of all determinants of a health system. The nature of financing defines the structure, the behaviour of different stakeholders and quality of outcomes. It is closely and indivisibly linked to the provisioning of services and helps define the outer boundaries of the system's capability to achieve its stated goals.

Health financing is by a number of sources: (i) the tax-based public sector that comprises local, State and Central Governments, in addition to numerous autonomous public sector bodies; (ii) the private sector including the not-for-profit sector, organizing and financing, directly or through insurance, the health care of their employees and target populations; (iii) households through out-of-pocket expenditures, including user fees paid in public facilities; (iv) other insurance-social and community-based; and (v) external financing (through grants and loans).

While taxation is considered the most equitable system of financing, as tax is a means of mobilizing resources from the richer sections to finance the health needs of the poor, out-of-pocket expenditures by households is considered the most inequitable. Under a system dominated by out-of-pocket expenditures, the poor, who have the greater probability of falling ill due to poor nutrition, unhealthy living conditions, etc. pay disproportionately more on health than the rich and access to health care is dependent on ability to pay.

Assessing how pro-poor a system of financing is again depends on how the different types of financing interact with each other. For example, a country may have a social health insurance policy but may not cover public hospitals as they are in theory expected to provide free care. In such a situation there may be greater incentives for patients to go to private hospitals as expenses

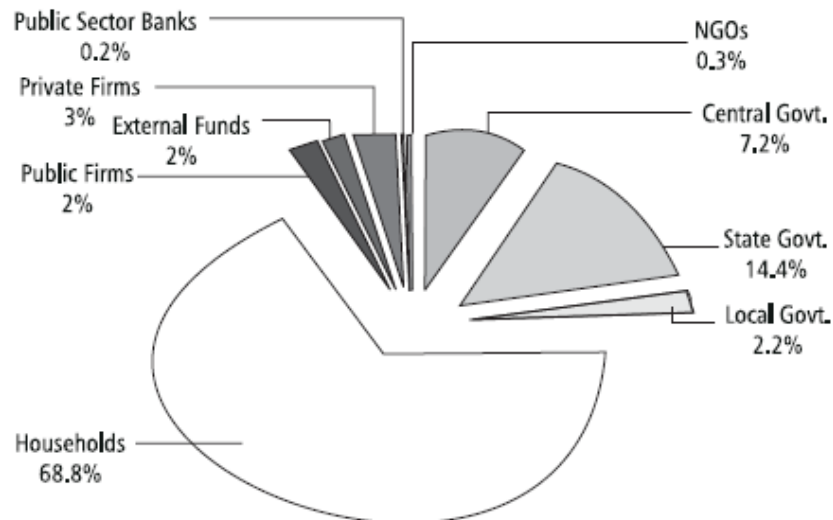
are covered by insurance resulting in no incentives for the public hospitals to function well. In that case, the poor who have no immediate access to insurance or private hospitals may stand to lose with poor quality public care.

In India, as in most countries, there is a clear urban-rural, rich-poor divide. Affluent sections, urban populations and those working in the organized sector covered under some form of social security such as the ESIS or CGHS, have unlimited access to medical services. The rural population and those working in the unorganized sector have only the tax-based public facilities to depend on for free or subsidized care, and private facilities depending on their ability to pay. The impact on equity then gets determined on whether the tax-based public facilities are able to provide a similar quality of care as provided under the Social Health Insurance Scheme. Because, if funding is low and the quality of care falls below expectation, is inaccessible, entails informal payments, etc. then the benefit of free care at the public facility gets neutralized with the second option of paying out-of-pocket to a relatively hasslefree private provider available close by, making the system of financing inequitable as well as inefficient. How and why this is so will be discussed in this section, as an understanding of the current structure of financing is important to identify future options for a better system.

### **Health Spending in India**

Health spending in India is estimated to be in the range of 4.5%-6%. These estimates are based on a weak methodological background. Therefore, an exercise was undertaken to construct estimates of health spending based on a National Health Account (NHA) framework. Such an approach enables a better and more reliable understanding of the size and structure of health financing in India. Results from the NHA show that the estimated health expenditure in India for the year 2001-02 was approximately Rs 108,732 crore, accounting for 4.8% of the GDP at current market price, while health expenditure as a percentage of the GDP measured at factor cost works out to 5.2%. Out of this, Central, State and local Governments together spend one-fourth of the total health expenditure. The share of other central ministries, which include railways, defence, posts and telegraphs, other civil ministries, etc. is estimated to be about 2.42% of total health spending in the country. The estimate is based on direct spending by the ministries as well as reimbursements provided to its employees. Local governments' resources for health are through transfers from State Governments and their own resources. An estimated 2.2 % of total health spending comes from the local government. The estimate involves only spending by municipalities and not Panchayati Raj institutions. It is to be noted that municipalities (in metros and particularly Mumbai Municipal Corporation) are major contributors among local governments while the share of Panchayati Raj institutions are a miniscule part of the health budget, since a substantial part of the panchayat's are mostly composed of either Central or State transfers.

## Sources of finance in the health sector in India during 2001-02



Regarding private spending on health, the NHA matrix reveals that 71% of the health budget is contributed by private sector, of which households alone spend 69%. As a percentage of the GDP at current market prices, households spend an estimated 3.3%. Spending by private firms is in various ways: either through their own health facilities, or by providing a lump sum amount to the employee for health, or reimbursing a part of the health expenditure incurred or by contributions to insurance schemes such as ESIS or voluntary private insurance schemes. External aid to the health sector, either to the Government or NGOs, taken together forms 2% of the total health budget.

A report from WHO says Health sector in India suffers from gross inadequacy of public finance and therefore an immediate and significant scaling-up of resources is an imperative. Further, there is an urgent need to restructure the budgeting system to make it more functional, amenable to review of resource use to take corrective measures in time and be flexible enough to have the capacity to respond to an emergency or local need. Rules and procedures for actual release of funds, appointment of persons, labour laws, procurement systems all need a thorough review. Greater decentralization of funds, aligned with functional needs and responsibilities, is necessary. However, any decentralization and financial delegation needs to be carefully calibrated and sequenced. In other words, decentralization can only be done after developing the requisite financial capability and laying down rules and procedures for accounting systems. Unless such restructuring takes place, greater absorption of funds will continue to be difficult.

### Health Financing

Access to quality healthcare in the private sector till now is limited by the high cost for the vast majority of India's population. However, this is changing dramatically with the advent of health financing as a preferred tool to cover for most healthcare expenditures.

Health financing essentially involves arranging for payment of a health service that has been arranged for under the financing contract.

Health insurance forms a major part of financing. It is growing exponentially with large and diverse players having entered the fray and enticing consumers with an ever-growing array of schemes. This is proved by the fact that healthcare insurance premium collected in 2005-06 registered a growth of 35% over year 2004-05.

The entry of pure Health Insurance companies into the marketplace in 2007 promises a plethora of innovative products. Swiss Re estimates a potential of US\$ 7,700 million in health insurance premium by 2015.

Foreign Direct Investment (FDI) limit in health insurance has rose from 26% to 49%, which would result in surge of international players & even more customized offerings targeting all sections of society. In the event of the minimum capital requirement of US\$ 25 million being reduced to US\$ 12 million, a number of stand-alone players like Atar Health, Apollo DKV have come into being, as is the trend across the world for health insurance.

**Less than 10%** of India's population today has some or the other form of health insurance covers: either voluntary or as a part of the Employees State Insurance, Central Government Health Scheme or Community Insurance.

### **The existing models of health financing are:**

#### **Government Funded**

In theory, this system is a universal pooling arrangement that involves the entire population. It provides access to publicly provided services financed through general revenues. In practice, it usually coexists with one or more of the other risk pooling arrangements.

State-funded systems are suitable for most countries having the capacity to raise taxes, establish an efficient network of providers, and need to target the poor.

It is a simple mode of governance and a potential for administrative efficiency and cost control.

It provides:

- A comprehensive coverage to the population, and
- A large scope for raising resources



## **Government supported**

### **Social health insurance**

- Social health insurance system is established in approximately 60 countries.
- It can be easily differentiated from general systems by independent or quasi independent insurance funds, a compulsory earmarked payroll contribution, and a clear link between the contributions and defined rights for the insured population.
- The main features of social health insurance are
  - Financing mainly through employee and employer payroll contributions.
  - The efficient management by nonprofit insurance funds.
  - The existence of a benefits package.
  - This provides
    - More resources for the health care system.
    - Less dependence on budget negotiations than state-funded systems.
    - High redistributive dimension.; and
    - A strong support by the population.

### **Community based health insurance**

Community-based health insurance schemes are also referred to as health insurance for the informal sector, mutual health organizations, or micro-insurance schemes. This was the basis for the creation of social health insurance systems in countries such as Germany, Japan, and Korea and the overall health financing strategy in a number of countries.

Today in low-income countries, community-based health insurance plays an increasing role in providing medical coverage to populations without access to other forms of formal medical protection. These schemes are also slowly penetrating the rural market.

It provides better access to health care for low-income people and has also been proved as useful as a component of a health financing system involving other instruments.

### **Micro financing**

Microfinance is the provision of financial services to low-income clients or solidarity lending groups including consumers and the self-employed, who traditionally lack access to banking and related services.

More broadly, it is a movement whose object is "a world in which as many poor and near-poor households as possible have permanent access to an appropriate range of high quality financial services, including not just credit but also savings, insurance, and fund transfers." Those who promote microfinance generally believe that such access will help poor people out of poverty.

Microfinance is a broad category of services, which includes microcredit. Microcredit is provision of credit services to poor clients.

## **Private**

### **Voluntary health insurance**

“Voluntary” or “Private” health insurance is a health financing model that is predominantly prevalent in high-income countries as a complement to the publicly financed systems.

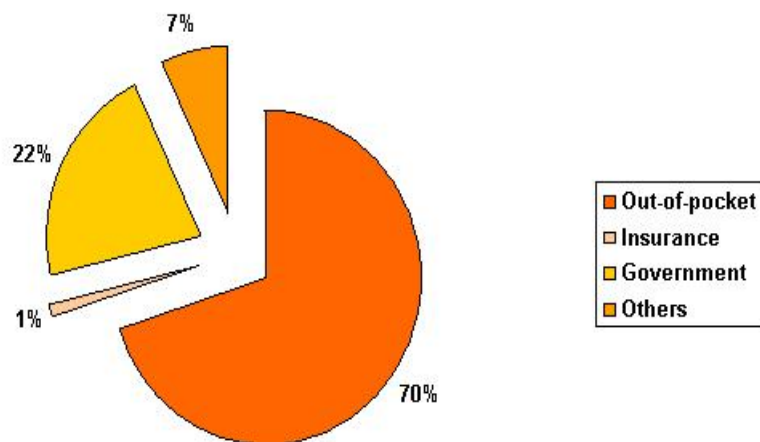
In practice, voluntary or private health insurance arrangements cover a wide spectrum of voluntary financing mechanisms and share diverse relationships with public and private health sector inputs.

It provides:

- An affordable financial protection (compared with out-of-pocket expenditure)
- An enhanced access to health services
- For an increased service capacity and promotes innovation, and
- Towards financing health care services not covered publicly, as in the case of supplementary private health insurance.

Healthcare systems can function effectively and efficiently under the ambit of structured & organized financing mechanism. In terms of expenditure on health, the private and public investment is roughly in the ratio of 80:20 respectively. With regards to healthcare and services spending, 62 per cent is self-sponsored. The Government contributes 24 per cent, employer provides for 9 per cent and only 5 per cent comes through insurance. This is dismal, when we discover that only Rs 250 crore is being collected for health insurance, whereas life insurance gets Rs 25,000 crores and even non-life items get Rs 9,000 crores towards insurance.

Private financing is gaining momentum, with about 70 % of the healthcare expenditure is out-of-pocket, which is increasing much more higher than the per capita income growth.



Due to advancement in technology, improvement in infrastructure and emphasis on quality etc, the cost of healthcare services is escalating. This is affecting the Indian middle and lower class directly. With passage of time alternative health financing mechanisms like Healthcare Insurance come into being to streamline & address the issue of inequitable and unaffordable healthcare delivery.

#### **Benefits of Health Insurance:**

- Protection against catastrophic financial burden in case of unexpected illness or injury

#### **Pooling of resources Limitations:**

- Hospitals tend to overcharge
- Absence of regulatory framework for providers
- Difficulty in handling fraudulent claims for insurance companies

Third Party Administrators or TPAs came into being to address these limitations. They are intermediaries that coordinate between Insurance companies and hospitals. From here emerged the concept of cashless hospitalization. While the insured is benefited by better service, insurers are benefited by reduction in their administrative costs, by outsourcing their management administrative activities, including settlement of claims at a certain cost. They come under the purview of Insurance Regulatory and Development Authority (IRDA), India. There are at present 27 TPAs registered under IRDA (as on 31<sup>st</sup> August 2007).